

REMARKS

This responds to the Office Action dated July 17, 2006. Claims 1, 24, and 51 are amended. Claims 1, 3-24, 26-32, and 51-56 are pending in this application.

§102 Rejection of the Claims

Claims 1, 6, 7, 11, 18-22, 24, 25, 29, 30, 51, 53 and 55 were rejected under 35 U.S.C. § 102(b) for anticipation by Shahandeh (U.S. Patent No. 6,532,389). Applicant has amended the claims to overcome this rejection. Support for such claim amendments is found, for example, at pages 8-9 of the present patent application. Applicant cannot find in the cited portions of Shahandeh any disclosure of,

monitoring a number of errors encountered while accessing memory locations in a normal operation mode, using the monitored number of errors to determine a rate of memory errors per time period, comparing the rate of memory errors to a programmable threshold rate of memory errors per time period, and detecting that the rate of memory errors exceeds the programmable threshold error rate,

as similarly recited or incorporated into these claims. Instead, Shanendeh (at FIG. 7) merely determines whether a page parity error has been detected on a particular page, which the Office Action contends constitutes a rate of errors of 1 “per page”—which is not the same as determining a rate of memory errors “per time period,” and comparing the rate to a programmable threshold error rate of memory errors per time period.

Indeed, merely detecting a memory error on a particular page may indicate that a particular memory cell was upset by a radiation event, such as an alpha particle, but such information says nothing about whether the device is in a high radiation environment—because such alpha particles may exist even in a low radiation environment, and may cause single-event upsets of the memory. By contrast, the present claims recite or incorporate determining a rate of memory errors “per time period.” This permits the present device to distinguish an ongoing high radiation environment from a single-event upset that might occur even in a low radiation environment, because the present device actually determines a rate of memory errors per time period, and compares that to a programmable threshold rate of memory errors per time period. Shanendeh does not appear to provide such capability, nor does it disclose comparing a rate to a

“programmable” threshold rate. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of these claims.

§103 Rejection of the Claims

1. Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shahandeh (U.S. Patent No. 6,532,389). Applicant respectfully traverses on the ground that no *prima facie* case of obviousness presently exists with respect to this claim because all elements recited or incorporated in this claim, as amended, are apparently not disclosed, taught, or even suggested by Shahandeh for the reasons discussed above with respect to the § 102 rejection.
2. Claims 3, 10, 13, 14, 16, 17, 26-28, 32, 52, 54 and 56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shahandeh (U.S. Patent No. 6,532,389) in view of Foster et al. (U.S. Patent Publication No. 2003/0036776). Applicant respectfully traverses on the ground that no *prima facie* case of obviousness presently exists with respect to these claims because all elements recited or incorporated in these claims, as amended, are not disclosed, taught, or even suggested by Shahandeh and/or Foster, for the reasons discussed above with respect to the § 102 rejection. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of these claims.
3. Claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shahandeh (U.S. Patent No. 6,532,389) in view of Foster et al. (U.S. Patent Publication No. 2003/0036776, “Foster”) as applied to claim 13 above, and further in view of Linberg (U.S. Patent Publication No. 2002/0032470). Applicant respectfully traverses on the ground that no *prima facie* case of obviousness presently exists with respect to this claim because all elements recited or incorporated in this claim, as amended, are apparently not disclosed, taught, or even suggested by Shahandeh, Foster, and/or Lindberg for the reasons discussed above with respect to the § 102 rejection. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of this claim.

4. Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shahandeh (U.S. Patent No. 6,532,389) in view of Ullestad et al. (U.S. Patent No. 6,635,048). Applicant respectfully traverses on the ground that no *prima facie* case of obviousness presently exists with respect to this claim because all elements recited or incorporated in this claim, as amended, are apparently not disclosed, taught, or even suggested by Shahandeh and/or Ullestad for the reasons discussed above with respect to the § 102 rejection. Accordingly, Applicant respectfully requests withdrawal of this basis of rejection of this claim.

Allowable Subject Matter

Claims 4, 5, 8, 9, 26 and 31 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Nonetheless, for the reasons discussed above, Applicant respectfully submits that such claims are believed allowable in their present form. Accordingly, Applicant respectfully requests allowance of such claims.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6951 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,


KENNETH P. HOYME ET AL.

By their Representatives,

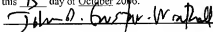
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22314-1450 on this 13 day of October 2006.


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